

The synonyms of the genus and species are as follows:—

Alcyoncellum, sp., Quoy & Gaimard; not Blainville, 'Zoophytes,' 1832, nor 'Manuel,' 1834.

Alcyoncellum, Milne-Edw., Lam. An. s. Vert. ed. 2. ii. 389 (1836); Bowerbank, British Sponges, i. 174.

Alcyonellum, Owen (misprint).

Euplectella, Owen, Trans. Zool. Soc. iii. 203 (1841); Trans. Linn. Soc. xxii. 117.

1. *Euplectella speciosa* (Venus's Flower-basket).

Alcyoncellum speciosum, Quoy & Gaimard, Voy. Astrolabe, iv. 302 (Zoophytes, t. 26. f. 5); Lam. Anim. s. Vert. ii. 389.

Euplectella aspergillum, Owen, Trans. Zool. Soc. iii. 203, t. 13.

Alcyoncellum aspergillum, Bowerbank, Brit. Sponges, i. 177.

Alcyoncellum corbicula, Valenc. Mus. Paris; Bowerbank, British Sponges, i. 176.

Hab. Philippines.

2. *Euplectella cucumer*, Owen, Trans. Linn. Soc. xxii. 117, t. 21.

Hab. Seychelles.

BIBLIOGRAPHICAL NOTICE.

The Record of Zoological Literature. 1865. Vol. II. Edited by ALBERT C. L. G. GÜNTHER, M.A., M.D., Ph.D., F.Z.S., &c., Van Voorst, 1866.

OUR readers, from the review which we last year gave of the first volume of this work, will know that the "the object of the 'Record' is to give, in an annual volume, reports on, abstracts of, and an index to, the various zoological publications which have appeared in the preceding year; to acquaint zoologists with the progress of every branch of their science in all parts of the globe; and to form a repertory which will retain its value for the student of future years." In all these respects the second volume fully bears out the promise of the first. The 'Record' is, in fact, invaluable; and zoologists owe a debt of gratitude to Dr. Günther and his coadjutors for the able way in which they carry out the task which they have proposed to themselves, and for the benefit which they thus confer upon their brother naturalists. The volume now before us contains a brief (necessarily very brief) summary of all that has been written in 1865—the cream, in fact, of no less than 35000 pages of zoological literature. It consists of a bulky octavo of 800 pages, and thus exceeds in size the 'Record' for 1864 by nearly one fourth. The reports on the Cœlenterata and Protozoa, which were omitted in the first volume, are now supplied for the year 1864 as well as for 1865. A slight change has been made in the list of Recorders: Dr. Cobbold and Mr. J. Reay Greene have ceased to take part in the work; and the cooperation of Dr. E. P. Wright has been secured, who has taken in hand

those classes on which the previously named gentlemen had last year reported, as well as the Cœlenterata and Protozoa.

We would especially call the attention of the editors of scientific journals and that of the secretaries of the learned societies to a very important plea urged by Dr. Günther in his Preface. Probably there is no zoologist among our readers who has been in the habit of writing on any branch of natural history who has not experienced the great inconvenience which arises from the fact that the separate copies of authors' papers have, in this country, always been repaged, instead of retaining, as they ought to do, the original pagination either alone or side by side with the repaging of the separate pamphlet. In order to quote such papers, therefore, it has hitherto been necessary to refer to the journal from which each paper has been extracted. Now such additionally required reference is in all cases attended with inconvenience, and to the naturalist resident in the country often impossible. The result is (a paper received by us this very morning supplies an instance), when such authors' copies are in the hands of subsequent writers they are frequently treated and referred to as separate publications, and no allusion whatever is made to the original work in which the paper appeared, and where alone it can be generally consulted. Most warmly, then, would we commend the suggestion of Dr. Günther, that, "as regards separate reprints of papers from Journals, Proceedings, or Transactions of learned societies, a most excellent plan, adopted for many years by the K. K. Zoolog.-botanische Gesellschaft of Vienna, and lately by the Zoological Society of London, should be more generally followed, viz. that of indicating the *original* pagination either at the bottom of the page or at the top within brackets. The value of separate copies is much increased thereby, as the time wasted in searching for the original pages is saved."

In the following table we give, first, the number of pages which relate to each class of animals in the volume before us, and, secondly, within brackets, the number of pages in the original publications of which the foregoing supply an abstract:—

Mammalia	53	(2400)	Insecta	330	(14300)
Aves	85	(3500)	Annelida	28	(800)
Reptilia	24	(1300)	Scolecida	12	(450)
Pisces	48	(3100)	Echinodermata	17	(600)
Mollusca	87	(4400)	Cœlenterata	16	(750)
Molluscoida	8	(300)	Protozoa	14	(1030)
Crustacea	60	(1500)			
Arachnida and	} 14	(480)			
Myriopoda					

It would be easy enough, no doubt, for a reviewer to find points for criticism as to imperfection in the analysis given of some particular work or paper, or to cavil at some expression of opinion on the part of the Recorder himself; but to do this would be most unfair. It would be difficult to find men more competent for their work than the several Recorders have proved themselves to be; and it is mere

justice to say that they have conscientiously, honestly, and ably discharged a most difficult task.

On a previous occasion we pointed out to our readers that it is impossible this work can be continued unless it be upheld by a large amount of support. Its publication is necessarily very costly; and an extensive sale is required to prevent a heavy loss falling upon that most enterprising of publishers, Mr. Van Voorst, from whose publications natural history has already received so great an impetus in this country. We cannot too strongly again insist upon the fact that it is the *duty* of every person interested in science, who can possibly afford to do so, to purchase the 'Record.' Dr. Günther and Mr. Van Voorst have commenced this annual solely in the interest of the progress of zoology; it remains for others, by their support, to enable them to continue it. The real student requires no instigation to purchase a book which he cannot do without, and the continued publication of which he knows to be of the greatest importance to himself; but, alas! the real scientific workers are few in number, and a sale among them alone would not suffice to prevent a heavy loss falling on the publisher, which would, of course, necessitate the discontinuance of the work. Let every friend of science, then, come forward and support the 'Record.'

It will give some idea of the character of the summaries of papers in the 'Record,' if we conclude this notice by giving an example. We shall select for this purpose what is told us in the two volumes on the migration of the mollusk *Dreissena polymorpha*. There are two mollusca, the steady diffusion of which has been the subject of most interesting and careful investigation for many years past. One of these, a marine Gastropod, is *Lottia testudinalis*, of which the gradual migration southwards down the eastern and western coasts of Great Britain has been clearly and distinctly traced. The other is one of the Acephala, *Dreissena polymorpha*. This is a freshwater species, nearly allied to the Mussel, which is rapidly spreading itself throughout the rivers and canals of this country, as well as those of the continent of Europe. The first volume of the 'Record' supplies us with the following particulars:—

“The immigration of *Dreissena polymorpha* into parts of Europe where it was originally unknown, has continued during the year 1864. Its occurrence in tributaries of the Rhine, Mosel, and Main is recorded by Messrs. Noll, Mandel, and Greim (Zoolog. Gart. Frankf. 1864, pp. 30, 89, and 124), with the addition of the dates of its first detection (1855–61); its presence in the middle part of the Rhine, at Knielingen near Karlsruhe, is testified by Hr. Kreglinger (Verh. ntrw. Verein. Karlsr. vol. i.); its appearance higher up in the Rhine, near Huningue, where it was found by Hr. Seul, is announced by Hr. P. Merian (Verh. ntrf. Ges. Basel, iv. 1864, p. 94); and, finally, its immigration into the Loire near Orleans, by way of canals, in 1864, has been observed by Capt. Morlet (Journ. Conch. pp. 309–314). Towards the end of last year the Recorder” (Dr. E. von Martens) “collected all the facts and observations concerning the immigration (or rather importation) of this mollusk which had

come to his notice, but the paper was not published until this year (Zool. Gart. Frankf. 1865, pp. 50-59, 89-97). *Dreissena polymorpha* is, according to Hr. Merian (*l. c.*) accompanied by *Neritina fluviatilis* in the Upper Rhine, where it never occurred before. The Recorder is enabled to confirm this by a communication from Prof. Braun, who says that it was not found in the Rhine near Carlsruhe some twenty years ago" (pp. 191-192).

In the second volume of the 'Record,' pp. 216-217, we have the following additional particulars on this most interesting subject:—

"Martens, E. v. Eine eingewanderte Muschel. Zoolog. Gart. Frankf. 1865, pp. 50-59, 89-95. *Dreissena polymorpha* was not known in the northern and western halves of Europe some forty years ago. The numerous treatises on the mollusk-faunas of these countries published at the close of the past and in the first two decades of the present century do not mention it. All at once it was observed for the first time in tributaries of the Baltic, the Niemen and Weichsel, in the year 1825, in tributaries of the Elbe in 1828, in the terminal branches of the Rhine in 1826, and in England in 1824. Several direct observations, and the comparison of the localities and times in which it has been observed for the first time in the several countries, establish the fact that it has been introduced into all those parts of Europe, along artificial, navigable canals, by means of ships or timber, and even across the Channel to England. The belief that it was observed already towards the close of the past century in south-western Germany is founded on a very superficial description of a shell by Sander and contradicted by the negative evidence given by Prof. Alex. Braun for the years 1824-46, and by Hr. Gysser for the present time, both agreeing in never having met with *Dreissena* in that part of Germany. As regards the rivers near to the Black and Caspian Seas, no reliable or sufficiently complete record of their faunas has been preserved from the commencement of this century; and there is consequently no reason to think that a recent migration has taken place into the Danube and the rivers of Southern Russia. At present it inhabits nearly all the tributaries of the Baltic, the Elbe upwards to Halle, the Rhine upwards to Huningue, the rivers of northern France, including the Loire, the British Islands, Hungary, a part of European Turkey, and almost the whole of Russia. It is very desirable that the attention of conchologists should be directed to the further advance of this shell, and that accurate statements should be made as regards the time at which it first appears in the lists of local faunas, not having been mentioned by previous accurate observers. This species is really a freshwater shell; it does not live in the Baltic itself, but only in the brackish water near the mouths of the rivers. The breakwater leading to the lighthouse at Swinemünde, for instance, is occupied on the river side by *Dreissena*, on the sea side by *Mytilus edulis*.

"Hr. Jäckel, Hr. C. Staude, and Dr. Fr. Buchenau have contributed further observations on this subject in the same journal, pp. 196, 228, and 278, in which they state that this shell is found at present in the Weser and in the Bavarian tributaries of the Main,

even in the canal by which the Main has been connected with a confluent of the Danube; so that *Dreissena* will shortly be an inhabitant of the upper and lower portions of the Danube without being found in the middle part of its course.

“Prof. E. A. Rossmässler, in his popular journal ‘Aus der Heimath,’ pp. 71–78 and 347–350, alludes to the same subject, principally its first appearance in Northern Germany, and states that the animal is able to detach the filaments by which it fixes itself to other objects, and that it is frequently found attached to the tail of crayfishes.

“Dr. Mörch (Ueber *Pinna fluviatilis* (Sander), Malak. Blätt. xii. pp. 110–117) defends his opinion (alluded to in the preceding note), viz. that a shell described by Sander in the year 1780 from a rivulet near Carlsruhe, is *Dreissena*, by an analysis of Sander’s account, and by the analogous fact that the occurrence of the genus *Unio* in Denmark remained unknown to so careful an observer as O. F. Müller (1773). But we cannot accept this as a very convincing argument, inasmuch as *Unio* has been included in all the faunas of the surrounding countries published at that time (of the Baltic provinces, Russia, North Germany, and England); whilst *Dreissena* is not mentioned in any of them.

“Hr. A. Gysser (Mal. Blätt. 1865, Literatur-Blatt, p. 38) also discusses this question. He lives at the place indicated by Sander, and expresses it as his opinion that the rivulet is a locality unfit for *Dreissena*, that Sander’s shell is a *Unio batavus*, his description entirely agreeing with specimens from that locality, with regard to size (two inches) as well as to coloration. A *Dreissena* of two inches would be a great rarity.”

MISCELLANEOUS.

Theory of the Skull and the Skeleton.

To the Editors of the Annals of Natural History.

GENTLEMEN,—In the ‘Reader’ newspaper for the 24th of March of this year, Mr. Seeley published a letter containing an abstract of the paper, then recently read by him, which was published at length in the last Number of your Journal. After reading Mr. Seeley’s communication, I wrote to the editor of the ‘Reader’ the following note, which was published on the 31st of March:—

“March 27, 1866.

“Sir,—If Mr. Seeley will refer to the ‘British and Foreign Medico-Chirurgical Review’ for October 1858, he will find, at the close of a criticism on Prof. Owen’s ‘Archetype and Homologies of the Vertebrate Skeleton,’ a brief outline of the theory that the vertebrate skeleton is a product of mechanical actions, the effects of which have been continually accumulated by inheritance.

“The doctrine which I had there space to present in general outline only, is more fully worked out in the last number of the ‘Principles of Biology,’ issued in December 1865.

“HERBERT SPENCER.”